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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/674,137

09/29/2003

Leonid Rozhavsky

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08/18/2006

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EXAMINER

NGUYEN, KHAI MINH

ART UNIT

PAPER NUMBER

2617

DATE MAILED: 08/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/674,137	<b>Applicant(s)</b> ROZHAVSKY ET AL.	
	<b>Examiner</b> Khai M. Nguyen	<b>Art Unit</b> 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 02 August 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-9 and 11-15 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,2,4-6,8,9 and 11-15 is/are allowed.
- 6) ☒ Claim(s) 7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All   b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Amendment*

1. Applicant's arguments with respect to claims 1-2, 4-9, and 11-15 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

#### Claim 5:

"Claim 3" should be - -claim 1- -

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lan et al. (U.S.Pat-20040214582) in view of Massie et al. (U.S.Pat-7068992).

Regarding claim 7, Lan teaches a wireless data communication system supporting an data transmission protocol including a plurality of wireless data communication terminals (fig.7, MSs 1, 2, and 3, base stations), wherein the terminals share a data communication resource (fig.2, and 7, paragraph 0153), and each of the terminals is operable to receive channel status information from a wireless serving communication terminal on an outbound channel (fig.7-8b, MSs 1, 2, and 3, base stations, paragraph 0006, 0168) and to transmit data to said wireless serving

communication terminal on an inbound channel (fig.7-8b, MSs 1, 2, and 3, base stations, paragraph 0006, 0168), each wireless data communication terminal comprising a processor operable to monitor channel status symbols inserted on the outbound channel (fig.7-8b, MSs 1, 2, and 3, base stations, paragraph 0006, 0168-0171); and to regulate time intervals between successive data transmissions on (fig.14a) said inbound channel dependent upon said monitored channel status symbols inserted on the outbound channel (fig.7-8b, MSs 1, 2, and 3, base stations, paragraph 0168-0171, 0194, 0270).

Lan fails to specifically disclose wherein the time intervals are adaptive time intervals in the RD-LAP wireless data communication system. However, Massie teaches wherein the time intervals are adaptive time intervals in the RD-LAP wireless data communication system (col.11, lines 24-34). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use wherein the time intervals are adaptive time intervals in the RD-LAP wireless data communication system as taught by Lan with Massie teaching in order to provide minimizing the loss of information in wireless communications.

***Allowable Subject Matter***

3. Claims 1-2, 4-6, 8-9, and 11-15 are allowed.

Accordingly, applicant's claims are allowed for these reason and these reasons recited by applicant in amendments filed on 4/28/2006, 11/10/2005, and 5/11/2005.

Applicant's invention is drawn to the present invention relates to provide a preferred embodiment of the present invention utilises an adaptive channel loading

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(ACL) method where the regulation of SDU time intervals between successive messages is dependent upon the current status of the inbound channel. The ACL method is based on continuous monitoring of the channel status symbols inserted in the outbound data stream. These channel status symbols are evaluated to determine a ratio between a number of IDLE statuses and a total number of received channel state symbols. This ratio is then used as a criterion for a decision on what time interval is to be used between two successive messages. The time interval is selected in order to provide maximal channel utilisation without exceeding the channel capacity, and the proposed technique of adapting the SDU time interval in the above manner allows an improvement of upto twice the inbound channel utilisation and thereby overall throughput.

Applicant's independent claim 1: The present in invention is directed to a wireless data communication terminal sharing a data communication resource with a plurality of other data communication terminals as define in the specification (paragraph 0032-0063). Independent claim identifies the uniquely distinct feature "processor is operable to determine a number of busy or idle timeslots in said data transmission on the outbound channel, and to determine what time interval should be set between two successive data messages based on said determination". Applicant's independent claim 1 comprises a particular combination of element, which is neither taught nor suggested by the prior art.

Applicant's independent claim 8: The present in invention is directed to a wireless data communication terminal sharing a data communication resource with a plurality of

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other data communication terminals as define in the specification (paragraph 0032-0063). Independent claim identifies the uniquely distinct feature “determining a number of busy or idle timeslots in said data transmission on the outbound channel; and determining what time interval should be set between two successive data messages transmit from said wireless data communication unit based on said determination of a number of busy or idle timeslots”. Applicant's independent claim 8 comprises a particular combination of element, which is neither taught nor suggested by the prior art.

Applicant's independent claim 13: The present in invention is directed to a wireless data communication terminal sharing a data communication resource with a plurality of other data communication terminals as define in the specification (paragraph 0032-0063). Independent claim identifies the uniquely distinct feature “determining a number of busy or idle timeslots in said data transmission on the outbound channel; and determining what time interval should be set between two successive data messages transmit from said wireless data communication unit based on said determination of a number of busy or idle timeslots”. Applicant's independent claim 13 comprises a particular combination of element, which is neither taught nor suggested by the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

### ***Conclusion***

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4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khai M. Nguyen whose telephone number is 571.272.7923. The examiner can normally be reached on 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571.272.7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Khai Nguyen  
Au: 2617

8/14/2006

  
GEORGE ENG  
SUPERVISORY PATENT EXAMINER